

# SEQUENCE LISTING

<110> Friddle, Carl Johan  
Gerhardt, Brenda  
Hilbun, Erin  
Turner, C. Alexander Jr.

<120> Novel Human Ion Channel-Related Proteins  
and Polynucleotides Encoding the Same

<130> LEX-0274-USA

<150> US 60/258,595

<151> 2000-12-28

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<170> FastSEQ for Windows Version 4.0

<210> 1

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<212> DNA

<213> homo sapiens

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<212> PRT

<213> homo sapiens

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 20          25          30
Arg Met Leu Asp Gly Arg Asp Gln Glu Phe Lys Met Val Gly Gly Gln
 35          40          45
Ile Phe Val Asp Arg Asp Gly Asp Leu Phe Ser Phe Ile Leu Asp Phe
 50          55          60
Leu Arg Thr His Gln Leu Leu Leu Pro Thr Glu Phe Ser Asp Tyr Leu
 65          70          75          80
Arg Leu Gln Arg Glu Ala Leu Phe Tyr Glu Leu Arg Ser Leu Val Asp
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 35 40 45  
 Phe Pro Glu Val Val Pro Leu Asn Ile Gly Gly Ala His Phe Thr Thr  
 50 55 60  
 Arg Leu Ser Thr Leu Arg Cys Tyr Glu Asp Thr Met Leu Ala Ala Met  
 65 70 75 80  
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 Phe Gln Phe Pro Glu Val Val Pro Leu Asn Ile Gly Gly Ala His Phe  
 35 40 45  
 Thr Thr Arg Leu Ser Thr Leu Arg Cys Tyr Glu Asp Thr Met Leu Ala  
 50 55 60

Ser Met Phe Ser Gly Arg His Tyr Ile Pro Thr Asp Ser Glu Gly Arg  
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 Tyr Phe Ile Asp Arg Asp Gly Thr His Phe Gly Tyr Val Ser Pro Ser  
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 Thr Ile Asn Phe Val Val Leu Ala Gly Asp  
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<210> 10  
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 <212> PRT  
 <213> homo sapiens

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Thr Arg Ser	Pro Val Ser Pro Leu Ala Ala Gln	Gly Ile Pro Leu Pro	
	35	40	45
Ala Gln Leu	Thr Lys Ser Asn Ala Pro Val His	Ile Asp Val Gly Gly	
	50	55	60
His Met Tyr	Thr Ser Ser Leu Ala Thr Leu Thr	Lys Tyr Pro Asp Ser	
	65	70	75
Arg Ile Ser	Arg Leu Phe Asn Gly Thr Glu Pro	Ile Val Leu Asp Ser	
	85	90	95
Leu Lys Gln	His Tyr Phe Ile Asp Arg Asp Gly	Glu Ile Phe Arg Tyr	
	100	105	110
Val Leu Ser	Phe Leu Arg Thr Ser Lys Leu Leu	Leu Pro Asp Asp Phe	
	115	120	125
Lys Asp Phe	Ser Leu Leu Tyr Glu Glu Ala Arg	Tyr Tyr Gln Leu Gln	
	130	135	140
Pro Met Val	Arg Glu Leu Glu Arg Trp Gln Gln	Glu Gln Glu Gln Arg	
	145	150	155
Arg Arg Ser	Arg Ala Cys Asp Cys Leu Val Val	Arg Val Thr Pro Asp	
	165	170	175
Leu Gly Glu	Arg Ile Ala Leu Ser Gly Glu Lys	Ala Leu Ile Glu Glu	
	180	185	190
Val Phe Pro	Glu Thr Gly Asp Val Met Cys Asn	Ser Val Asn Ala Gly	
	195	200	205
Trp Asn Gln	Asp Pro Thr His Val Ile Arg Phe	Pro Leu Asn Gly Tyr	
	210	215	220
Cys Arg Leu	Asn Ser Val Gln Val Leu Glu Arg	Leu Phe Gln Arg Gly	
	225	230	235
Phe Ser Val	Ala Ala Ser Cys Gly Gly Gly Val	Asp Ser Ser Gln Phe	
	245	250	255
Ser Glu Tyr	Val Leu Cys Arg Glu Glu Arg Arg	Pro Gln Pro Thr Pro	
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Thr Ala Val	Arg Ile Lys Gln Glu Pro Leu Asp		
	275	280	

<210> 11  
 <211> 795  
 <212> DNA  
 <213> homo sapiens

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795

<210> 12  
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<212> PRT  
<213> homo sapiens

<400> 12

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20 25 30  
Thr Arg Ser Pro Val Ser Pro Leu Ala Ala Gln Gly Ile Pro Leu Pro  
35 40 45  
Ala Gln Leu Thr Lys Ser Asn Ala Pro Val His Ile Asp Val Gly Gly  
50 55 60  
His Met Tyr Thr Ser Ser Leu Ala Thr Leu Thr Lys Tyr Pro Asp Ser  
65 70 75 80  
Arg Ile Ser Arg Leu Phe Asn Gly Thr Glu Pro Ile Val Leu Asp Ser  
85 90 95  
Leu Lys Gln His Tyr Phe Ile Asp Arg Asp Gly Glu Ile Phe Arg Tyr  
100 105 110  
Val Leu Ser Phe Leu Arg Thr Ser Lys Leu Leu Leu Pro Asp Asp Phe  
115 120 125  
Lys Asp Phe Ser Leu Leu Tyr Glu Glu Ala Arg Tyr Tyr Gln Leu Gln  
130 135 140  
Pro Met Val Arg Glu Leu Glu Arg Trp Gln Gln Glu Gln Glu Arg  
145 150 155 160  
Arg Arg Ser Arg Ala Cys Asp Cys Leu Val Val Arg Val Thr Pro Asp  
165 170 175  
Leu Gly Glu Arg Ile Ala Leu Ser Gly Glu Lys Ala Leu Ile Glu Glu  
180 185 190  
Val Phe Pro Glu Thr Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly  
195 200 205  
Trp Asn Gln Asp Pro Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr  
210 215 220  
Cys Arg Leu Asn Ser Val Gln Val Arg Ala Ala Arg Cys Pro Leu Pro  
225 230 235 240  
Ala Glu Pro Pro Ala Ser Ala Glu Pro Ser Arg Gly Arg Val Ser Trp  
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Arg Glu Ala Arg Ser Leu Lys Arg  
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<212> DNA  
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tgtgggggcg gtgtggactc ctcccagttc agcgagtatg tgctttgccg ggaggagcgg 720
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<210> 14
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<212> PRT
<213> homo sapiens

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20 25 30
His Ile Asp Val Gly Gly His Met Tyr Thr Ser Ser Leu Ala Thr Leu
35 40 45
Thr Lys Tyr Pro Asp Ser Arg Ile Ser Arg Leu Phe Asn Gly Thr Glu
50 55 60
Pro Ile Val Leu Asp Ser Leu Lys Gln His Tyr Phe Ile Asp Arg Asp
65 70 75 80
Gly Glu Ile Phe Arg Tyr Val Leu Ser Phe Leu Arg Thr Ser Lys Leu
85 90 95
Leu Leu Pro Asp Asp Phe Lys Asp Phe Ser Leu Leu Tyr Glu Glu Ala
100 105 110
Arg Tyr Tyr Gln Leu Gln Pro Met Val Arg Glu Leu Glu Arg Trp Gln
115 120 125
Gln Glu Gln Glu Gln Arg Arg Arg Ser Arg Ala Cys Asp Cys Leu Val
130 135 140
Val Arg Val Thr Pro Asp Leu Gly Glu Arg Ile Ala Leu Ser Gly Glu
145 150 155 160
Lys Ala Leu Ile Glu Glu Val Phe Pro Glu Thr Gly Asp Val Met Cys
165 170 175
Asn Ser Val Asn Ala Gly Trp Asn Gln Asp Pro Thr His Val Ile Arg
180 185 190
Phe Pro Leu Asn Gly Tyr Cys Arg Leu Asn Ser Val Gln Val Leu Glu
195 200 205
Arg Leu Phe Gln Arg Gly Phe Ser Val Ala Ala Ser Cys Gly Gly Gly
210 215 220
Val Asp Ser Ser Gln Phe Ser Glu Tyr Val Leu Cys Arg Glu Glu Arg
225 230 235 240
Arg Pro Gln Pro Thr Thr Ala Val Arg Ile Lys Gln Glu Pro Leu
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Asp

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<210> 15
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<212> DNA
<213> homo sapiens

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<400> 15

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<210> 16  
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 <212> PRT  
 <213> homo sapiens

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His Ile Asp Val Gly Gly His Met Tyr Thr Ser Ser Leu Ala Thr Leu
 35          40          45
Thr Lys Tyr Pro Asp Ser Arg Ile Ser Arg Leu Phe Asn Gly Thr Glu
 50          55          60
Pro Ile Val Leu Asp Ser Leu Lys Gln His Tyr Phe Ile Asp Arg Asp
 65          70          75          80
Gly Glu Ile Phe Arg Tyr Val Leu Ser Phe Leu Arg Thr Ser Lys Leu
 85          90          95
Leu Leu Pro Asp Asp Phe Lys Asp Phe Ser Leu Leu Tyr Glu Glu Ala
100          105          110
Arg Tyr Tyr Gln Leu Gln Pro Met Val Arg Glu Leu Glu Arg Trp Gln
115          120          125
Gln Glu Gln Glu Gln Arg Arg Arg Ser Arg Ala Cys Asp Cys Leu Val
130          135          140
Val Arg Val Thr Pro Asp Leu Gly Glu Arg Ile Ala Leu Ser Gly Glu
145          150          155          160
Lys Ala Leu Ile Glu Glu Val Phe Pro Glu Thr Gly Asp Val Met Cys
165          170          175
Asn Ser Val Asn Ala Gly Trp Asn Gln Asp Pro Thr His Val Ile Arg
180          185          190
Phe Pro Leu Asn Gly Tyr Cys Arg Leu Asn Ser Val Gln Val Arg Ala
195          200          205
Ala Arg Cys Pro Leu Pro Ala Glu Pro Pro Ala Ser Ala Glu Pro Ser
210          215          220
Arg Gly Arg Val Ser Trp Arg Glu Ala Arg Ser Leu Lys Arg
225          230          235

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<210> 17  
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 <212> DNA  
 <213> homo sapiens



<400> 17

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